

Attorney's Docket No.: **44655-324916**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re PATENT APPLICATION of:  
Teuvo MOILANEN

Confirmation No.: 1173

Application No.: 10/563,135

Group Art Unit: 3654

Filed: April 21, 2006

Examiner: REESE, Robert T.

Title: ARRANGEMENT IN CONNECTION WITH CENTRAL LUBRICATION SYSTEM

**AMENDMENT IN RESPONSE TO FINAL OFFICE ACTION**

**MAIL STOP AF**  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In response to the June 15, 2011 Office Action relating to the above-identified patent application, Applicant requests the following amendments to the pending claims and reconsideration of the patent claims based on the following remarks.

Barnes & Thornburg Customer No:

**23646**

U.S. Patent and Trademark Office

IN THE FIGURES::

Please see further amended Figures 1A, 1B and Figs. 2, and Figs. 3A, 3B and 3C submitted to overcome the drawing objection.

IN THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) An arrangement in connection with a central lubrication system, the arrangement comprising

a lubricant vessel,

a pump unit,

a control unit,

pipe systems,

a pressure monitor unit,

at least one feeder provided with at least one magnetizable piston that moves due to the influence of the pressure of a lubricant present in the pipe system to be lubricated, and

a movement monitor unit for each feeder configured to monitor the operation of the central lubrication system, the lubricant being arranged to be pumped from the lubricant vessel along the pipe to the feeders and objects to be lubricated, wherein the movement monitor unit is entirely located outside a pressurized space of the corresponding at least one feeder, the pressurized space being formed by at least one wall, wherein the movement monitor unit comprises both [[; and]] a junction [[part that]], which is manufactured from a weakly magnetizable material and includes both [[comprises: a sensor part which is located outside of the at least one wall that defines the pressurized space corresponding at least one feeder and comprises]] a fixed permanent magnet that is stationary with respect to the sensor and configured to generate a magnetic field, and a sensor configured to detect [[for detecting]] movement of the magnetizable piston, and the movement monitor unit further comprises an electronics part which processes a signal received from the sensor produced as a result of a change in the magnetic field caused by the movement of the piston [[with respect to the sensor part]] and forwards this processed signal to the control unit.

2. (Previously Presented) An arrangement as claimed in claim 1, wherein the sensor is a Hall sensor.

3. (Previously Presented) An arrangement as claimed in claim 2, wherein the sensor is an analogue Hall sensor.

4. (Previously Presented) An arrangement as claimed in claim 2, wherein output of the movement monitor unit is locking so that a detection mode of the piston remains in a memory.

5. (Previously Presented) An arrangement as claimed in claim 4, wherein the locked detection mode of the output of the movement monitor unit is releasable by cutting an operating voltage of the sensor for a predetermined time.

6. (Previously Presented) An arrangement as claimed in claim 1, wherein the movement monitor unit is in its entirety located outside a pressurized space of the feeder.

7. (Previously Presented) An arrangement as claimed in claim 1, wherein the electronics part comprises a voltage regulator, a detector for detecting polarity of voltage, a microcontroller, an output circuit, indicator LEDs as well as an amplifier part comprising a differential amplifier circuit and low-pass filters.

8. (Previously Presented) An arrangement as claimed in claim 7, wherein the output circuit is a potential-free relay contact.

9. (Previously Presented) An arrangement as claimed in claim 1, wherein the plurality of movement monitor units of the central lubrication system are coupled in series.

10. (Cancelled)

**REMARKS**

By this Amendment, the figures are amended to address the drawing objection and claim 1 is amended to merely clarify the recited subject matter and claim 10 is cancelled without prejudice or disclaimer. Claims 1-9 are pending.

Applicant thanks the Examiner and his supervisor for the courtesies shown Applicant's undersigned representative during the telephonic interview conducted on October 12, 2011. Based on the agreement reached during that personal interview, Applicant has amended claim 1 to further clarify the nature of the movement monitor unit and the relationship between the incorporated fixed magnet and sensor. Based on those amendments, Applicant understands that the rejection of claims 1, 2, 6 and 10 (claim 10 being cancelled) based on Hakansson (US 6,928,976) and Jones (US 5,926,018), rejection of claims 4 and 5 based on Hakansson, Jones and Reininger (20030030431), rejection of claims 3 and 7 based on Hakansson, Jones and "Hall Effect Sensing and Application" by Honeywell (hereafter "Honeywell"), rejection of claim 8 based on Hakansson, Jones, Honeywell and Diong (US 20020165953), rejection of claim 9 based on Hakansson, Jones, Honeywell, Diong and Melgaard et al. (US 3,872,473; hereafter "Melgaard") are all overcome because the cited prior art, analyzed individually or in combination, fails to teach or suggest the recited invention now defined in claim 1.

In view of the above, it is submitted that all of the claims are in condition for allowance and such action is respectfully requested. If there is any issue remaining to be resolved, the examiner is invited to telephone the undersigned at (202) 371-6371 so that resolution can be promptly effected.

It is requested that, if necessary to effect a timely response, this paper be considered a Petition for an Extension of Time sufficient to effect a timely response with the fee for such extensions and shortages in other fees, being charged, or any overpayment in fees being credited, to the Account of Barnes & Thornburg LLP, Deposit Account No. 02-1010 (44655-324916).

Respectfully submitted,  
BARNES & THORNBURG LLP

*/ Christine H. McCarthy /*

Christine H. McCarthy  
Reg. No. 41,844

Date: 13 October 2011

REPLACEMENT SHEET

1/2

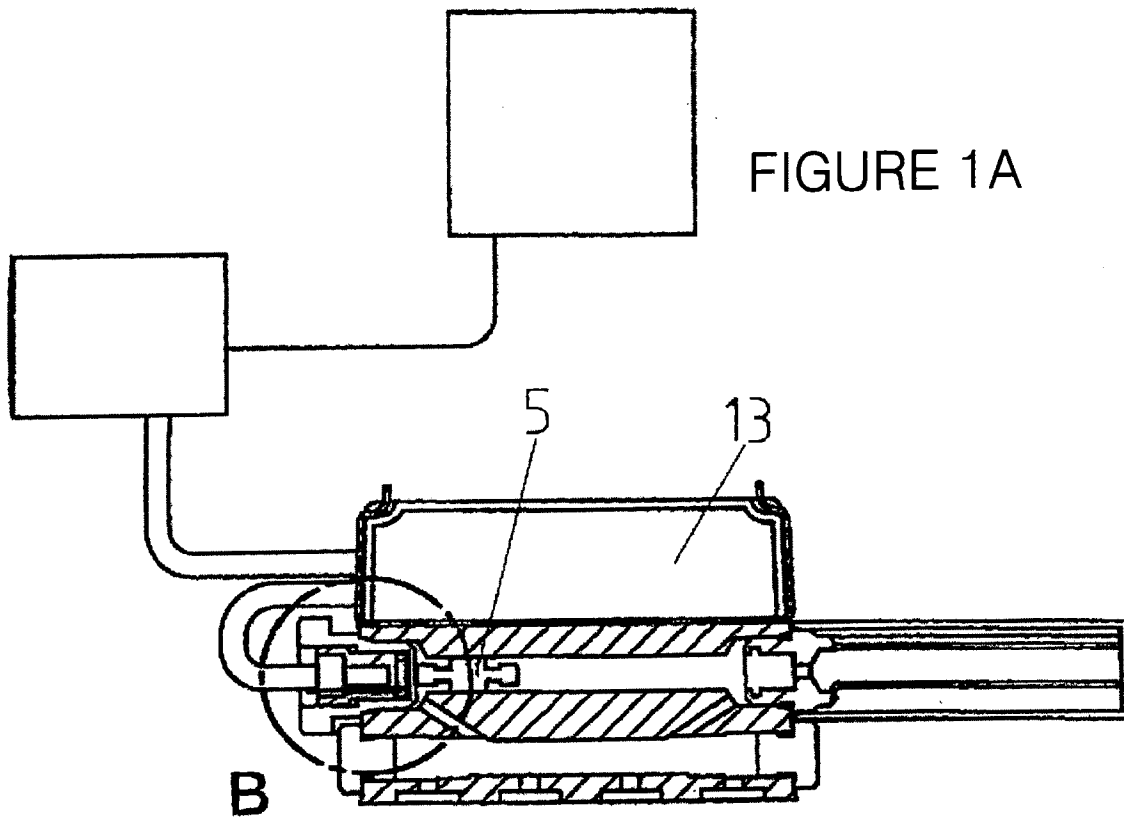


FIGURE 1A

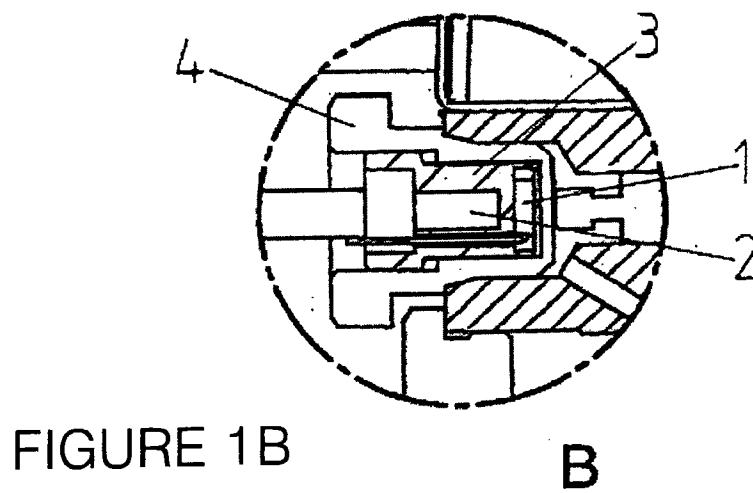


FIGURE 1B

Figure 2

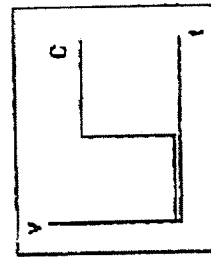
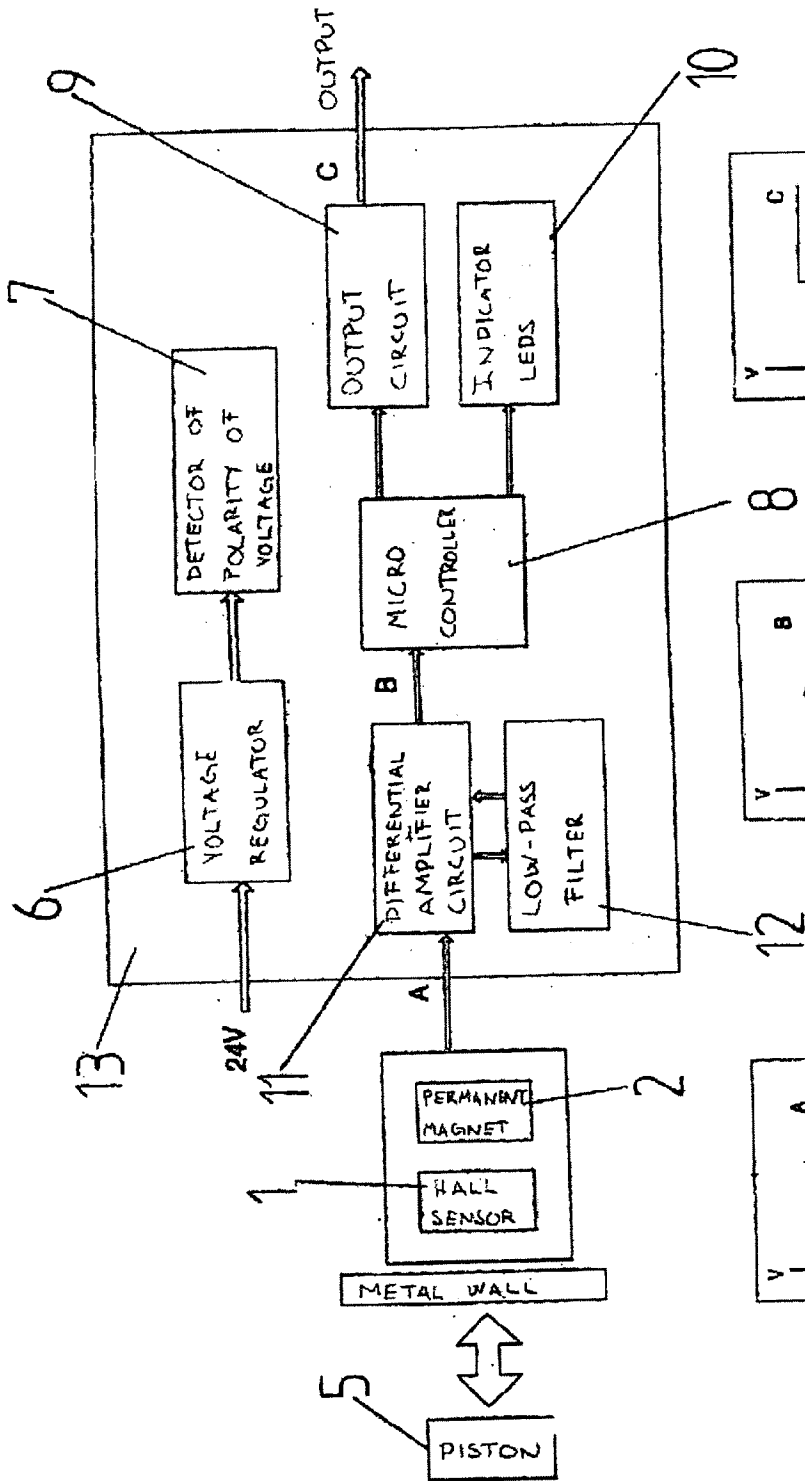


Figure 3C

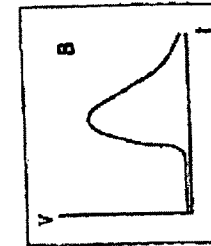


Figure 3B

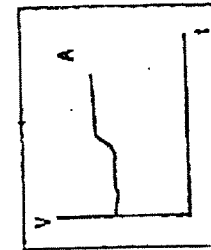


Figure 3A